P-063 - DIFFERENTIAL NATURAL HISTORY OF LATE INFANTILE CLN6 AND CLN2 DISEASES OF NEURONAL CEROID LIPOFUSCINOSSES

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CLN6 and CLN2 diseases show onset ages at late infantile (LI) and adult (A) ages. CLN2 has also a juvenile or protracted form (1). The clinical course of LI-CLN6 and LI-CLN2 needs to be carefully differentiated to facilitate early diagnoses.

OBJECTIVES: To point out the differences among the natural history of LI-CLN6 and LI-CLN2 diseases. Three Argentine individuals suspected of a NCL were evaluated under clinical, biochemical, morphological and genetic criteria. Other 27 were formerly published as affected of CLN2 disease (1). The 3 CLN6 cases showed TPP1 values in the control’s range. Onset symptoms of LI-CLN2 cases were speech delay or failure at 2-4y, and short after that seizures, visual failure, movement disorder, early death. CLN6 cases showed symptoms onset at 2-3.3y with decreased motor function; frequent falls 2-4.5y; assisted march 4.4-6.11y; total prostration 5.11-9.6y; language delay 3.3-4y; speech difficulties 4.4-4.5y, speech loss 5.11-9.6y; visual loss 3-7y; blindness (only reported in 1/3 cases) 5y; refractory seizures with generalized atonic myoclonic movements and lateralization of the trunk 3-5.9y; early death: 1/3 15y, 1/3>18y 1/3 living at 10.3y. In the CLN6 disease the electron microscopy of skin biopsies showed dense fingerprint profiles and some curvilinear bodies (CV). The LI-CLN2 skin morphology was mostly CV. Genetic variants; CLN6: Case 1, E4c.486 + 8C> T / E7 c.755G> A; Case 2, E4c.307 C> T / E6 c.556dupC; Case 3, E4c.461_463delTCA/E3 c.250T>A. DNA variants in CLN2, as published (1). The natural history of LI-CLN6 disease was stated in 3 Argentine cases and crucial differences with the LI-CLN2 disease were found at clinical, morphological and biochemical levels. Clinically LI-CLN6 disease is an early movement disorder in contrast to CLN2 that initiates frequently with speech delay or failure, followed by seizures. The suspicion of CLN6 disease can be emitted on the base of the movement disorder at onset and lacking TPP1 deficiency. No A-CLN6 disease (Kufs) was recognized up to date in Argentina, thus a study of the differences with adult and juvenile CLN2 disease is pending. (1) Kohan R, Pesaola F, et al 2015. BBActa. 1852: 2301 -2311.